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10/803,075	03/18/2004	Kia Silverbrook	FPD003US	5180

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SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER	
GHATT, DAVE A	

ART UNIT	PAPER NUMBER
2854	

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/803,075	SILVERBROOK, KIA	
	Examiner	Art Unit	
	Dave A. Ghatt	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8//25/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-18,20,22-32 and 34-39* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-18,20,22-32 and 34-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 10 is objected to because of the following informalities: Claim 10 lines 3 and 4 refer to "the computer system." There is no proper antecedent basis for these recitations. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2-7, 9, 11, 12, 13, 14, 15, 16, 17, 18, 22, 24, 25, 26, 27, 30, 31, 34, 35, 36, 38, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 6,120,127) in view of MacLeod et al. (US 6,356,901). With respect to claim 39, Inoue et al. and MacLeod et al. render obvious the claimed subject matter. As shown in Figures 17, 18, and 19, Inoue et al. teaches a personal computer having a printing and display device comprising a flat panel display 407 and an inkjet printhead 501 adjacent a media feed path f, both the flat panel display and media feed path being generally planar components whereby their height and width far exceed their depth. Figure 17 also illustrates an outer casing (shown generally at 405) housing the flat panel display, the inkjet printhead and the media feed path wherein, the outer casing houses the flat panel, the media feed path so that they can both be supported on a flat surface in an upright

configuration. With respect to the requirement for a pagewidth inkjet printhead, column 23 lines 60-64 teach the use of a pagewidth inkjet printhead corresponding to the width of the recording medium. With respect to the requirement for a data connection hub and a receiving device, the apparatus of Inoue et al. is silent regarding this teaching. However, MacLeod et al. teaches a personal computer similar to that of Inoue et al. that includes the claimed connections. As outlined in column 5 lines 31-57, MacLeod et al. teaches a personal computer, similar to that taught by Inoue et al., the MacLeod et al. device including a data connection hub for connection to an external computer (network PC) and at least one data receiving device such that data from the external computer (network PC) can be displayed or received by the data receiving device. To one of ordinary skill in the art, it would have been obvious to include the connections as taught by MacLeod et al., in the apparatus of Inoue et al., in order to enable use in an office environment as taught by McLeod et al. in column 5 line 42. Furthermore, the use of the connectors is rendered obvious to one of ordinary skill in the art because as taught in column 5 line 42 of MacLeod et al., such network connections are commonplace.

With respect to claims 2 and 22, and the requirement for a display that exceeds 40 cm measured along a diagonal of the printing and display screen, as outlined in column 1 lines 16-20 of the primary reference, Inoue et al. teaches that the invention is related to a personal computer, a word processor, and an electronic typewriter. Personal computers and word processors routinely include displays of the required dimensions. In view of this teaching, it would have been obvious to one of ordinary skill in the art to include a display with the recited 40 cm diagonal because displays are routinely made to fit this recited measurement in order to provide optimum visibility of the objects on the display screen.

With respect to claim 3-7 and 13, and the data connection hub and general protocol requirements, Inoue et al. does not teach the recited protocol elements. However, MacLeod et al. teaches USB connections that render the claimed subject matter obvious. Column 5 lines 21-30 of MacLeod et al. disclose the use of a USB connector. In view of this teaching of MacLeod et al., it would have been obvious to one of ordinary skill in the art, to include the outlined data connection hub and protocol requirements in the apparatus of Inoue et al. because computers are routinely connected to extra electronic devices to provide the benefit of additional processing functions. Furthermore, these USB connectors taught by MacLeod et al. provide smooth and efficient transfer of data among electronic components.

With respect to claim 9, the primary reference Inoue et al. teaches the system configured to receive print data and configured to display data (column 16 line 50 – column 17 line 11).

With respect to claim 11, it is not known if either Inoue et al. or MacLeod et al. teach a socket, but to one of ordinary skill in the art, it would have been obvious to include a socket as recited, because sockets are routinely used in electronic components to accept data cables.

With respect to claim 12, although Inoue et al. does not teach a wireless receiver, MacLeod et al. renders this claimed subject matter obvious. Column 5 lines 29-57 of MacLeod et al. teach the use of WAN and LAN connections, which are routinely wireless. In view of this teaching, to one of ordinary skill in the art, it would have been obvious to use wireless connections, in the apparatus of Inoue et al. because wireless connectors provide the advantage of reducing the amount of physical elements.

With respect to claims 14 and 15, Figures 17-19 of the primary reference Inoue et al. teaches feed mechanism 517, configured to position the paper substantially parallel in at least one direction with respect to a plane defined by the flat panel display.

With respect to claim 16, Figure 17 of the primary reference Inoue et al. teaches the processing of a single sheet, one at a time.

With respect to claim 18, the primary reference Inoue et al. teaches the use of color printing in column 52 lines 54-61.

With respect to claim 24, insofar as structure is recited, the teaching of Inoue et al. in view of MacLeod et al. teaches the structural limitations as recited, and therefore has the *capability* of printing on standard size paper. The applicant is reminded that standard sized paper is not required to meet this claim limitation.

With respect to claim 27, column 16 line 61 of the primary reference Inoue et al. teaches an LCD display panel as recited.

With respect to claims 30 and 31, the print head as disclosed in the primary reference Inoue et al. is capable of printing images (including photographic images) and text data.

With respect to claim 35, as shown in Figure 18, the primary reference Inoue et al. teaches a display wherein the paper passes behind the display and the print head relative to a viewing position.

With respect to claim 38, although Inoue et al. does not teach this arrangement, the arrangement of MacLeod et al. has the capability to provide the functions of receiving, via the interface, input from a user indicative of a print command, sending from the printing and display device to the computer system, a print request, and receiving, from the computer system and in

response to the print request, a document to be printed, printing the document. As stated above, to one of ordinary skill in the art, it would have been obvious to include the connections as taught by MacLeod et al., in the apparatus of Inoue et al., in order to enable use in an office environment as taught by McLeod et al. in column 5 line 42. Furthermore, the use of the connectors is rendered obvious to one of ordinary skill in the art because as taught in column 5 line 42 of MacLeod et al., such network connections are commonplace.

4. (Alternative Rejection Based on the Embodiment shown in Figures 67B and 68 of Inoue et al.) With respect to claims 17, 25, 26, 34, 36, and 39, the teaching of Inoue et al. in view of MacLeod et al. renders obvious the claimed subject matter. With respect to claims 39, 17 and 36, as shown in Figures 67B and 68, Inoue et al. teaches a personal computer having a printing and display device comprising a flat panel display 3213 and an inkjet printhead 3202 adjacent a media feed path (starting from a position at the back side of the display), both the flat panel display and media feed path being generally planar components whereby their height and width far exceed their depth. Figure 68 also illustrates an outer casing (shown generally at 3330 and 3314) housing the flat panel display, the inkjet printhead and the media feed path wherein, the outer casing houses the flat panel, the media feed path so that they can both be supported on a flat surface in an upright configuration. With respect to the requirement for a pagewidth inkjet printhead, column 52 lines 25-34 teach the use of a pagewidth inkjet printhead corresponding to the width of the recording medium. Figure 68 also teaches a paper separator 3331 for feeding a single sheet of paper from a multi-sheet paper holder. With respect to the requirement for a data connection hub and a receiving device, the apparatus of Inoue et al. is silent regarding this

teaching. However, MacLeod et al. teaches a personal computer similar to that of Inoue et al. that includes the claimed connections. As outlined in column 5 lines 31-57, MacLeod et al. teaches a personal computer, similar to that taught by Inoue et al., the MacLeod et al. device including a data connection hub for connection to an external computer (network PC) and at least one data receiving device such that data from the external computer (network PC) can be displayed or received by the data receiving device. To one of ordinary skill in the art, it would have been obvious to include the connections as taught by MacLeod et al., in the apparatus of Inoue et al., in order to enable use in an office environment as taught by McLeod et al. in column 5 line 42. Furthermore, the use of the connectors is rendered obvious to one of ordinary skill in the art because as taught in column 5 line 42 of MacLeod et al., such network connections are commonplace.

With respect to claim 25, insofar as structure is recited Inoue et al. teaches the claimed subject matter. Figure 68 of Inoue et al. teaches the apparatus configured such that paper to be printed is fed manually into a paper entry position, that directs the paper from a region adjacent the upper edge of the flat panel display, past the printhead *for* printing, then out of the device adjacent a lower edge of the flat panel display.

With respect to claim 26, insofar as structure is recited, the primary reference Inoue et al. teaches the claimed subject matter. As shown in Figure 68. Inoue et al. teaches a curved paper guide 3332 disposed beneath the flat panel display, such that the paper that has been printed is urged horizontally as it exits the device.

With respect to claim 34, Figure 67B of the primary reference Inoue et al. teaches a stand (generally shown at 3200) for holding the flat panel display in an operative position, wherein the

stand includes at least one receptacle configured to accept at least one replacement ink cartridge for supplying ink to the printer.

5. Claims 8, 10, 23, 32, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 6,120,127) in view of MacLeod et al. (US 6,356,901) as applied to claim 39 above (in the rejection statement in paragraph 3 of the present office action), and further in view of Silverbrook (US 5,984,446). With respect to claims 8, 23, and 37, as outlined in the above rejection to claim 1, Inoue et al. in view of MacLeod et al. teach all the claimed subject matter except for the teaching of a second pagewidth printhead to enable substantially simultaneous printing. The teaching of Silverbrook renders obvious the broad requirement for two print heads. As outlined in column 49 lines 22-47,Silverbrook teaches a printing arrangement that includes two printheads on either side of a receiver. In view of this teaching, to one of ordinary skill in the art, it would have been obvious to include two printheads on either side of the media path taught by Inoue and MacLeod in order to enable printing on both sides of the receiver, as taught in the abstract of Silverbrook in column 49 lines 29-32.

With respect to claim 10, as broadly recited, the connection of Inoue et al. is releasably or detachably connected to the computer system or the apparatus.

With respect to claim 32, the primary reference Inoue et al. teaches a personal computer.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 6,120,127) in view of MacLeod et al. (US 6,356,901) as applied to claim 39 above (in the rejection statement in paragraph 3 of the present office action), and further in view of

Silverbrook (US 5,801,739). As outlined in the above rejection of claim 39, Inoue et al. and MacLeod et al. teach all the claimed structure except for the a teaching of the amount of nozzles included in the printhead. Silverbrook teaches a printhead arrangement similar to that of Inoue et al. and MacLeod et al. As outlined in column 3 lines 50-67, Silverbrook teaches the use of more than 5,000 nozzles. In view of this teaching, it would have been obvious to one of ordinary skill in the art to include in the invention of Inoue and MacLeod, because this structure provides the advantage of high-speed operation.

7. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (US 6,120,127) in view of MacLeod et al. (US 6,356,901) as applied to claim 39 above (in the rejection statement in paragraph 3 of the present office action), and further in view of Hotomi et al. (US 6,126,263). As outlined in the above rejection of claim 39, Inoue et al. and MacLeod et al. teach all the claimed structure except for the a teaching of the printhead configured to receive halftoned print data and the printer having a halftoning unit for generating halftoned image data. Hotomi et al. teaches a printhead arrangement similar to that of Inoue et al. and MacLeod et al. As outlined in column 6 lines 39-67, Hotomi et al. teaches the halftoning unit and the printhead configured to receive halftoned print data. In view of this teaching, it would have been obvious to one of ordinary skill in the art to include in the invention of Inoue and MacLeod, because this structure provides the advantage of providing gradient correction of signals, as taught in column 6 lines 46-67.

Response to Arguments

8. Applicant's arguments with respect to newly presented claim 39 have been considered but are moot in view of the new ground(s) of rejection. However, with respect to the general argument that prior art incorporates a display with a desktop computer, the examiner agrees. However, the applicant should note that the claim language does not distinguish the applicant's invention from the prior art. Consequently, the prior art (Inoue et al.) is properly applied.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave A. Ghatt whose telephone number is (571) 272-2165. The examiner can normally be reached on Mondays through Friday 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAG

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